2011 Military Health System Conference

Keeping Tabs: DoD's Response to Psychological Risks

Lessons Learned from Health Assessments

The Quadruple Aim: Working Together, Achieving Success COL Robert DeFraites, LtCol Hans Ritschard, & CDR Meena Vythilingam January 25, 2011







Armed Forces Health Surveillance Center

&

Psychological Health Strategic Operations

Office of Deputy Assistant Secretary of Defense for

Forge Health Protection And Readiness

Outline



- Introduction & Alibis
- Who are we helping?
- Where do we stand?
- What do the numbers show?
- Where are we going?

Military Health System Conference



January 24 - 27, 2011

Gaylord National Resort & Convention Center National Harbor, MD

The Quadruple Aim: The MHS Value Model

Readiness

Ensuring that the total military force is medically ready to deploy and that the medical force is ready to deliver health care anytime, anywhere in support of the full range of military operations, including humanitarian missions.

Experience of Care

Providing a care experience that is patient and family centered, compassionate, convenient, equitable, safe and always of the highest quality;

2011-MatsiConference



Population Health

Reducing the generators of ill health by encouraging healthy behaviors and decreasing the likelihood of illness through focused prevention and the development of increased resilience.

Per Capita Cost

Creating value by focusing on quality, eliminating waste, and reducing unwarranted variation; considering the total cost of care over time, not just the cost of an individual health care activity.

Background



FY1998 NDAA Pre-DHA (DD 2795) PDHA (DD 2796) 2008
PDHA and
PDHRA forms
are updated

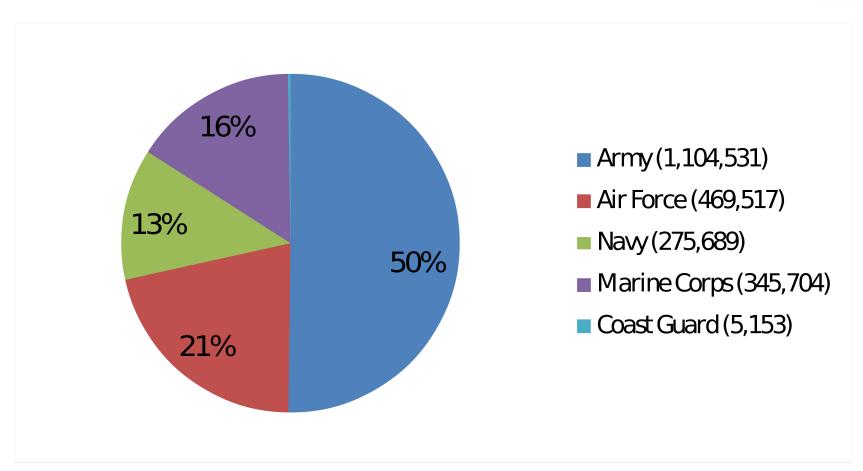


FY2010 NDAA Additional mental health assessments

Total Service Members Ever Deployed Since September 2001 by



Service



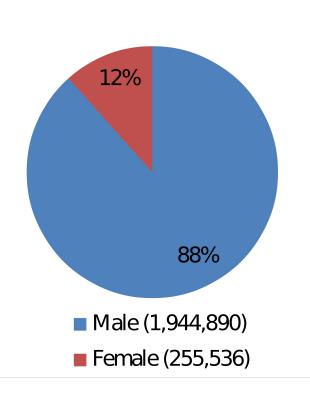
N = 2,200,594

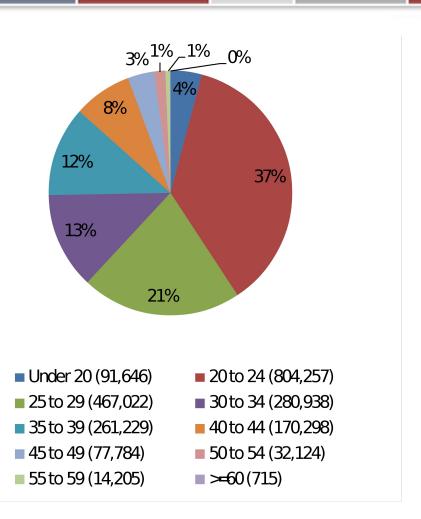
Source: DMDC CTS Roster Sep 2001- October 2010

Deployed Since September 2001 by



Gender & Age



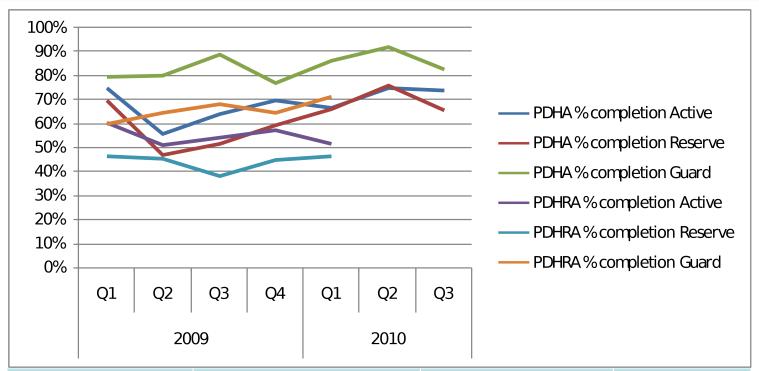


N =

20,**2**0,**0**0,**15**10,**12**10 CTS Roster Sep 2001- October 2010

PDHA/RA Completion Rates CY 2009-2010





DoD Total CY 2009-2010	Number of Service Members who Returned from Deployment	Number Completed Forms	% Completion
PDHA (January 2009- September 2010)	695,444	489,261	70%
PDHRA (January 2009-March 2010)	494,792 Source: Defer	275,909 nse Medical Surveillance	56% System (DMSS),

2011 MHS Conference

17DEC2010

PTSD & Depression Screening



- Positive PTSD screening (2 of 4 questions)
 - Nightmares
 - Avoid situations
 - Constantly on guard, easily startled
- Detachment Positive depression screening (1 of 2 questions)
 - Little interest or pleasure in doing things
 - Feeling down, depressed, or hopeless

Screening for Risky Drinking



AUDIT C: 3 questions

- Frequency
- Quantity
- Binge drinking frequency

Cut offs for risky drinking

- -Men ≥ 4
- Women ≥ 3

Health Assessment Results



	Pre-DHA since 2003 (DD 2795)	PDHA since 2003 (DD 2796)	PDHRA since 2005 (DD 2900)
# Completed (# of Individuals)	1,176, 432	1,740, 909	1,147, 918
Self-reported Health Excellent, Very Good, Good	97%	91%	85%
Health Concerns	11%	23%	35%
Positive PTSD Screen	n/a	9%	11%
Positive Depression Screen	n/a	3%	8%
Referred for Further Evaluation	4%	18%	18%

Source. Defense Medical Sulveillance System (DMSS),

Screening for Disorders



- Active Component Mental Disorders
 - Incidence
 - Hospitalization
- Post-deployment screening
 - PTSD
 - Depression
 - Alcohol use
- PTSD and Depression Attrition and Promotion (survival analysis)

Defense Medical Surveillance System



- Executive information system
 - Longitudinal service data
 - Almost 10M US personnel (including Coast Guard) ever serving on active duty
 - Data date back to the early 1990s
- Contains data on:
 - Major deployments
 - Diseases
 - Medical events

Medical Surveillance Monthly Report

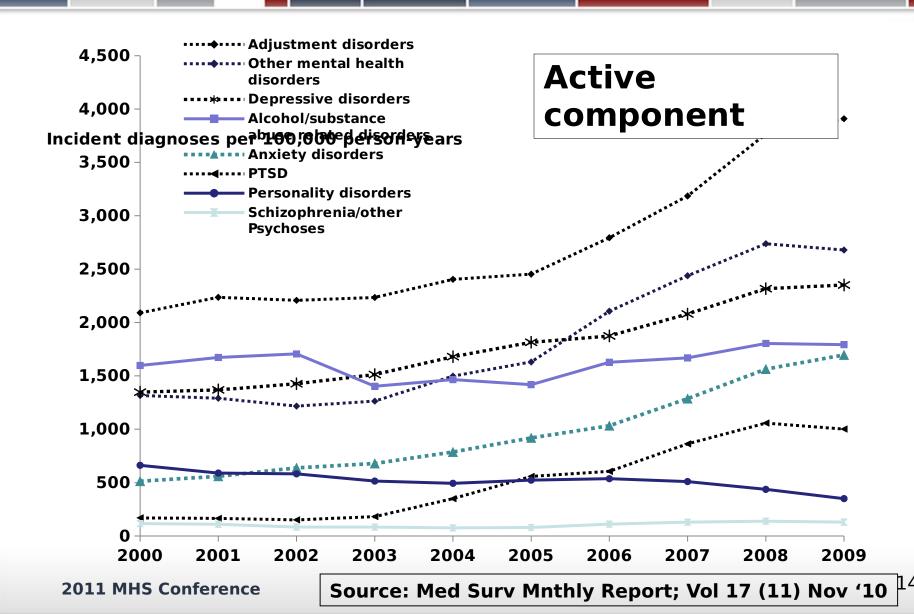




- Published monthly
- -In its 16th Year
- Over 100 issues on-line, www.afhsc.mil
- November 2010
 issue focused on
 Mental Health

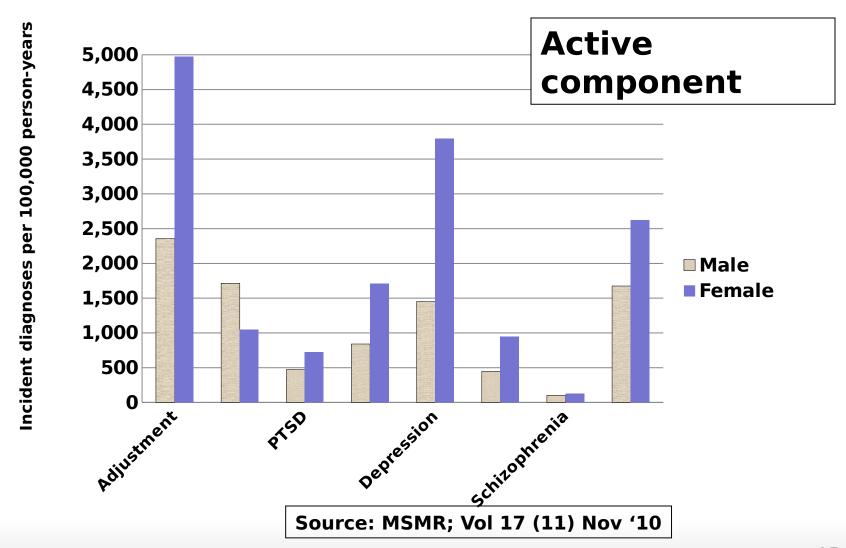
Mental disorders Incidence





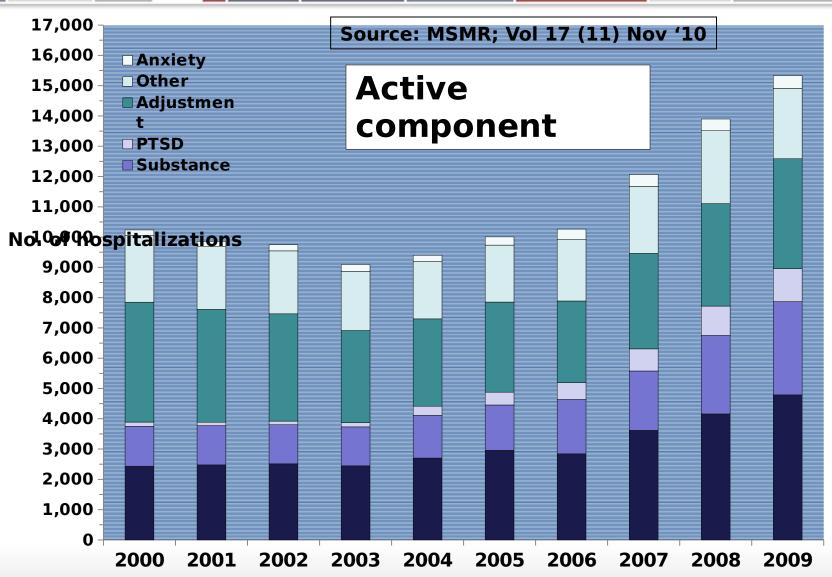
Mental Disorders by Gender, 00-09





Mental Disorder-Related Hospitalizations





Members Returning from Deployment in 2009



Source: Defense Medical Surveillance System

Men		
PDHA	% PTSD Screen Positive	7.3
PDHR A	% PTSD Screen Positive	10.1
Wome		
n		
PDHA	% PTSD Screen Positive	7.7
PDHR	% PTSD Screen	10.6
A	POSit PDHA=Post-deplement PDHRA=Post-deplement PDHR	loyment heal ployment hea

Mental Health Encounters and PTSD among Service Members Returning from Deployment in 2009



Source: Defense Medical Surveillance System

■ Percent of redeployers with a MH clinic visit within 180 days of redeployment

Percent of 2009 Redeployers

2011 MHS Conference

Percent of redployers with a PTSD diagnosis within 180 days of redeployment

Depression Screen for Service Members Returning from Deployment

Source: Defense Medical Surveillance System

Men		
PDHA	% Screen Positive for Depression	2.7
PDHR A	% Screen Positive for Depression	2.7
Wome		
n		
PDHA	% Screen Positive for Depression	2.8
PDHR	% Screen Positive for	3.1
A	PDHA=Post-deployment he	ealth as

PDHRA=Post-deployment health re-assessment

2011 MHS Conference

Mental Health Encounters and Depression among Service Members Returning from Deployment in 2009



Source: Defense Medical Surveillance System

Percent of redeployers with a MH clinic visit within 180 days of redeployment

Percent of 2009 Redeployers

2011 MHS Conference

Alcohol Screen for 2009 Redeployers



Source: Defense Medical Surveillance System

Men		
PDHA	% Alcohol Screen Positive	25.7
PDHR A	% Alcohol Screen Positive	36.6
Wome n		
PDHA	% Alcohol Screen Positive	21.6
PDHR A	PDHA=Post-deployments	

2011 MHS Conference 21

Mental Health Encounters and Alcohol among Service Members Returning from Deployment in 2009



Source: Defense Medical Surveillance System

Percent of 2009 Redeployers

[■] Percent of redeployers with a MH clinic visit within 180 days of redeployment

Percent of redployers with an alcohol diagnosis within 180 days of redeployment

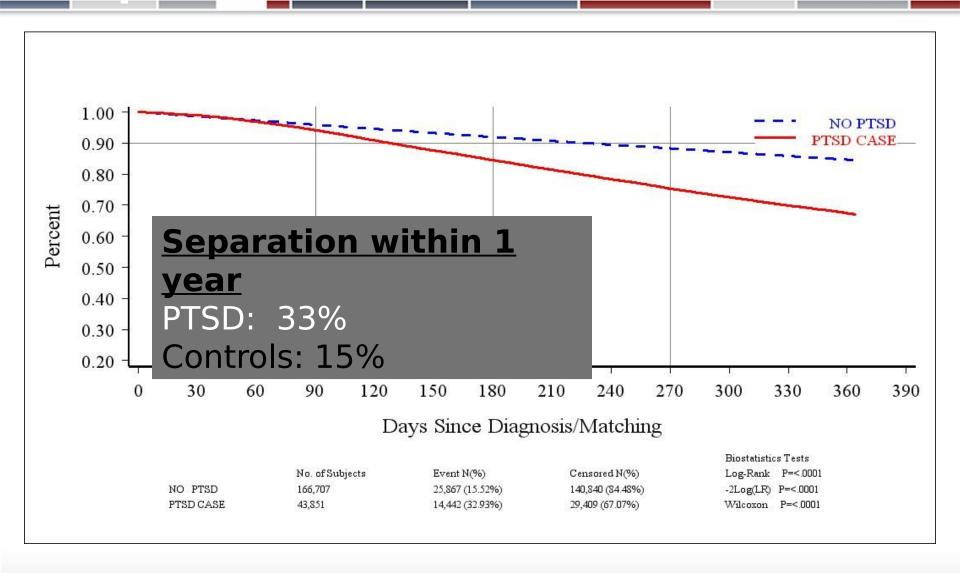
Survival Analysis Methods



- PTSD Case definition: One inpatient or two outpatient encounters with an ICD-9 code = 309.81
- Data source-Defense Medical Surveillance System
- Depression Case definition: One inpatient or two outpatient encounters with any of the following ICD-9 codes: 296.20-296.24, 296.30-296.34
- Cases matched to 4 controls by:
 - Start date of first OEF/OIF deployment
 - Sex
 - Service at time of case's diagnosis
 - Component at time of case's diagnosis
 - Rank at time of case's diagnosis

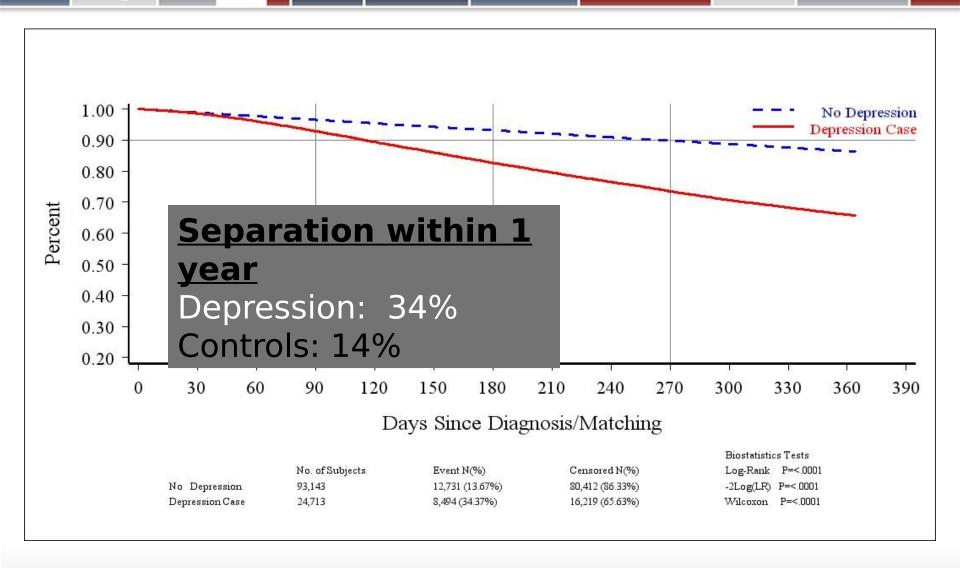
PTSD Survival Analysis: Separation from Service





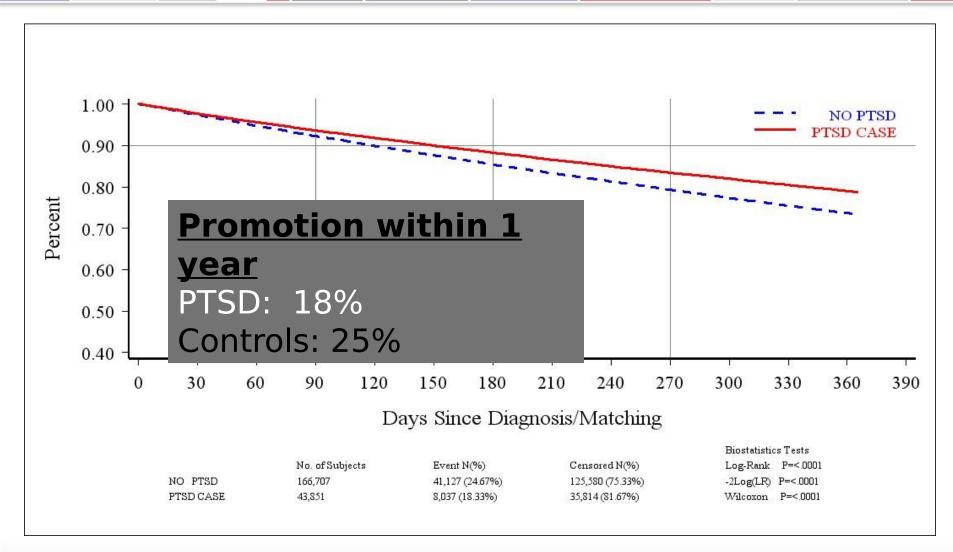
Depression Survival Analysis: Separation from Service





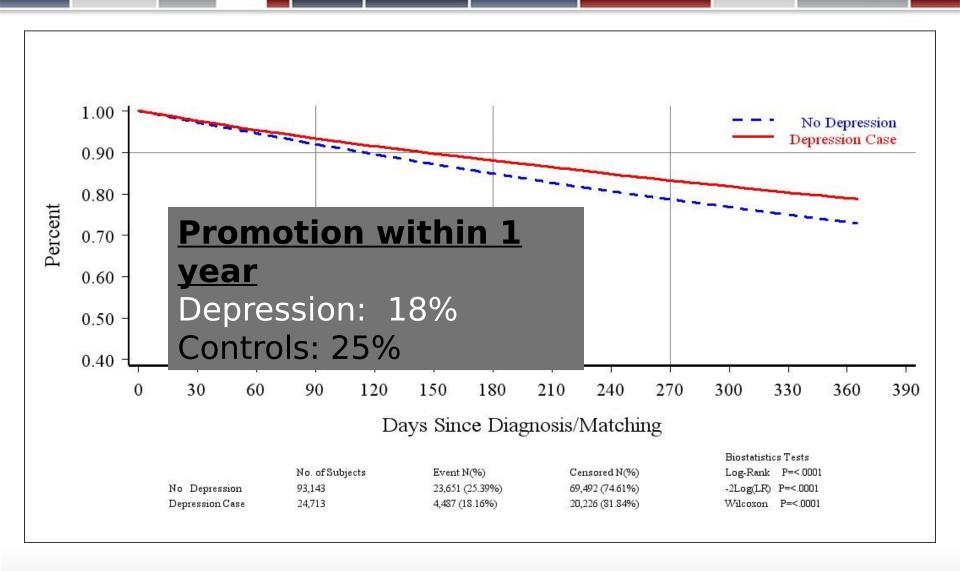
PTSD Survival Analysis: Promotion in Rank





Depression Survival Analysis: <u>Promotion in Rank</u>





Overview



• Why revise deployment mental health assessments?

What's new?

- Service member
- * Provider
- Training guidance

Current Status

- Time line of actions
- * Service Implementation Status / Waivers
- * Evaluation

Four things you can do

Current 2-Staged Mental Health Assessment



Self-Report Questions

- All Service members
- Low time burden
- Screens for potential problems
- **Automated**

Provider Interview

- May or may not happen
- No provider training and/or guidance to conduct mental health assessments





NEW Mental Health Assessment - Readiness ++



Self-Report Questions

- All Service members
- Low time
 burden
- Screens potential problems
- Pencil-Paper or Automated

2011 MHS Conference

All Service members

Follow-up Self Report Questions

- Second level screening if Stage 1 screen for PTSD and/or Depression is positive
- "Drill down" to PTSD and Depression criteria
 - Functional impairment

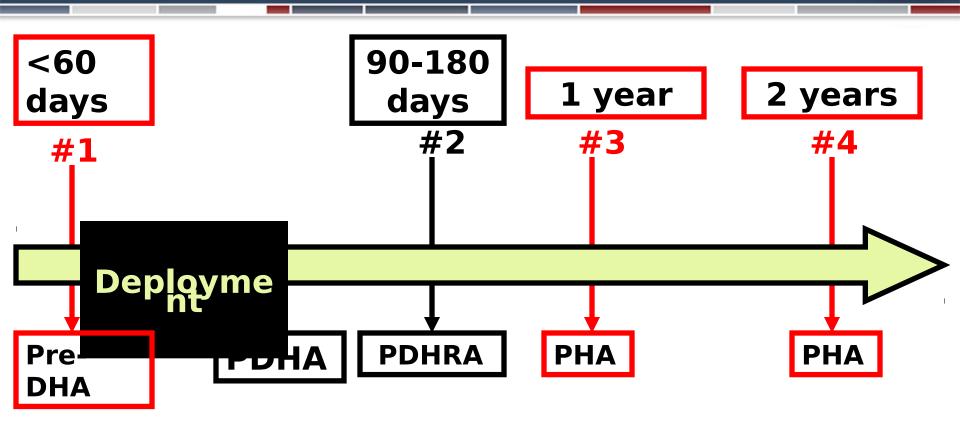
Person to Person Provider Interview

Detailed Guidance:

- PTSD symptoms
- Depression symptoms
- Brief intervention for risky drinking
- Suicide/Violence

Assessment Timeline





Pre-DHA (Pre-Deployment Health Assessment) - 60 days prior to deployment PDHA (Post-Deployment Health Assessment) - 30 days before or after return from deployment

PDHRA (Post-Deployment Health Re-Assessment) - 90-180 days after return from deployment

PHA #1 (Periodic Health Assessment) - 7 - 12 months after return from deployment inference

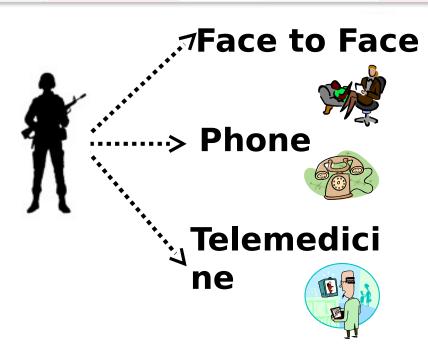
PHA # 2 - Between 16 - 24 months after return from deployment

New Mental Health Assessments



Private

• Confidentia Pisturb



Consistent across Services















2011 MHS Conference



Training to Administer DoD Deployment Mental Health Assessments

http://fhpr.osd.mil/mh

a

The Office of the Deputy Assistant Secretary of Defense

(Force Health Protection & Readiness)

and

The Deployment Health Clinical Center Walter Reed Army Medical Center

This educational activity is intended to provide training to and certification of providers of pre and post-deployment mental health assessments in accordance with OASD(HA) policy 10-005, "Mental Health Assessments for Members of the Armed Forces Deployed in Connection with a Contingency Operation."

Mental Health Assessment Training



	TOTAL	SUCCESSFUL	UNSUCCESSF
Total	1,700	1,630	70
Air Force	1,469	1,405	64
Army	39	36	3
Coast Guard	121	121	0
Navy	11	11	0
Other	60	57	3

Something New & Something



Service	Mem	ber	Self
Rep	ort		

- Mental health history
- Medications
- •AUDIT-C (3 items) / TICS
- PTSD: PC-PTSD
- Depression PHQ-2
- Other emotional problems
- Major life stressors
- interpersonal conflict
- Mental health concerns or questions
- -Swicidecon Violence

2nd Level Screen -Service Member Self Report

•PTSD Check List

PHQ-8

Functional impairment Provider interview

Training guidance Certification

BriefIntervention for alcohol use

Scoring,Referralguidelines forPTSD,depression

Suicide risk assessment

- Suicidal Ideation- Risk Assessment
- A. Verify whether Service member has passive thoughts of death (1st part of Question 10) or active thoughts of self-harm (2nd part of Question 10) "Have you had thoughts of actually hurting yourself?"
- B. If 'Yes', ask the following four questions (Four P's: Past history, Plan, Probability, Preventive factors):

Ask about presence of a plan: "Have you thought about how you might actually hurt yourself?" If Yes, How?

Estimate probability: "There's a big difference between having a thought and acting on a thought. How likely do you think it is that you will act on these thoughts about hurting yourself or ending your life some over the next month?"

Determine if there are any <u>preventive factors</u>? "Is there anything that would prevent or keep you from harming yourself?"

Evaluate past history: "Have you ever attempted to harm yourself in the past?"

C. Assess other risk factors for suicide:

History of suicide attempt Hopelessness 2011 MHSterpersonal conflicts Significant co-morbid anxiety Social isolation Financial stress

Current Implementation Status



- Air Force: Full implementation -Jan 2011
- Army: Currently 2 pilot studies
- Navy: April 2011
- Coast Guard: Partial November 2010
- Air Force RC April 2011

Do These Assessments Add Value?



- Better at identifying mental health conditions?
- Does predeployment screening reduce mental health problems in theater?
- Are 3 post deployment screens too many?
- **■01Track**reresponse to treatment?

4 Things You Can Do....



- Get trained! http:/fhpr.osd.mil/mha
- Ensure Service member privacy
- Ensure a warm hand-off for follow up care
- Talk to / convince a nonbeliever!

Acknowledgments





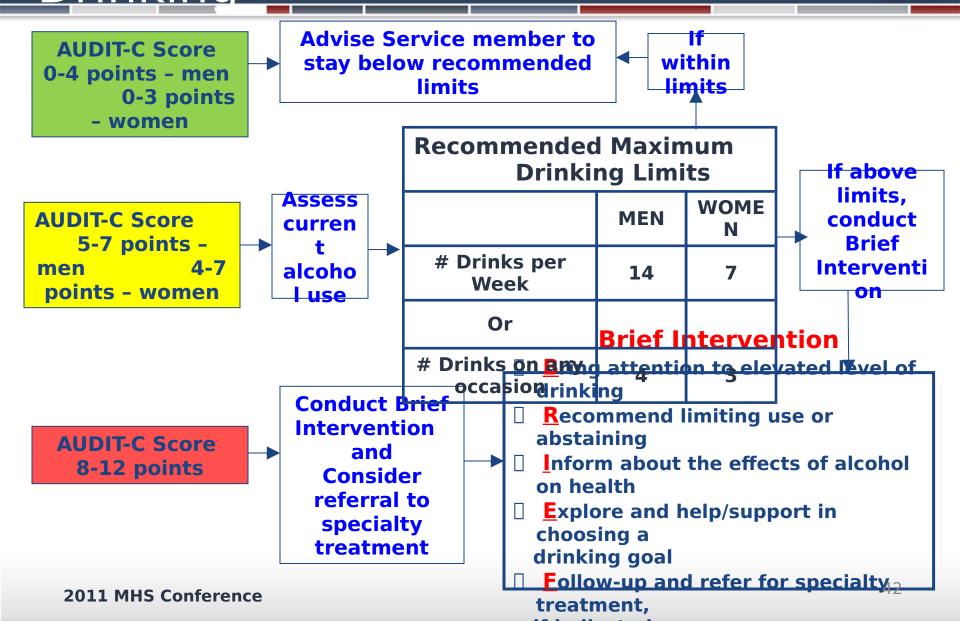
- Dr. Angelia Eick
- Timothy Powers
- CAPT Sharon Ludwig
- Zheng Hu
- MSMR staff
 - Leslie Clark
 - Denise Olive
 - John Brundage
 - Ellen Wertheimer

FHP&R

- Mellissa Fraine
- Briana Stephenson
- John Davison

Algorithm for Managing Risky Drinking*





Stage 3: PTSD Algorithm

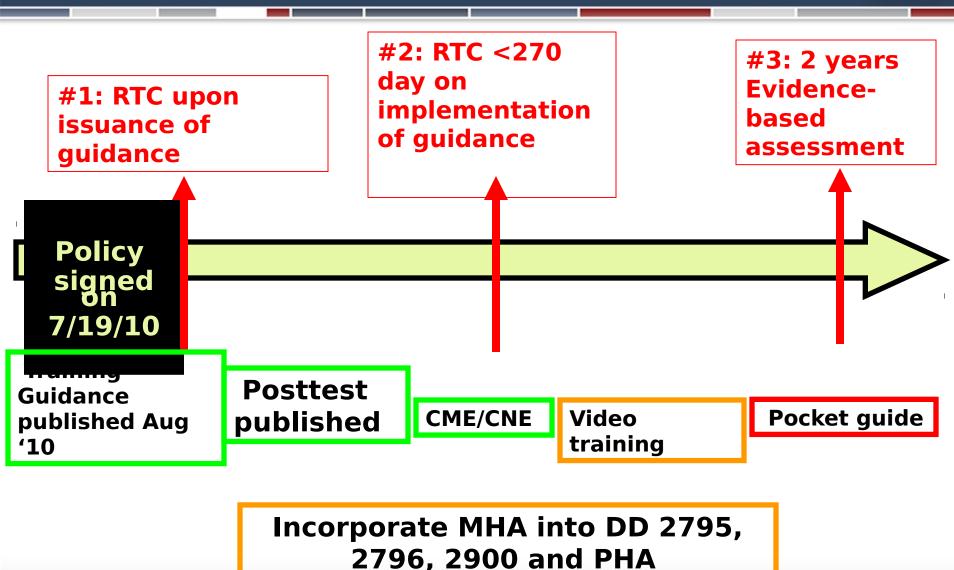


Level of Functionin g	PCL Score <30 Sub-threshold or no PTSD Symptoms	PCL Score 30- 39 Mild PTSD Symptoms	PCL Score 40- 49 Moderate PTSD Symptoms	PCL Score ≥50 Severe PTSD Symptoms
Not difficult at all or Somewhat Difficult	Consider offering Reassurance AND PTSD Education*	PTSD Ed	Consider referral AND PTSD Education*	
Very Difficult To Extremely Difficult *PTSD Edu	Assess need for further evaluation AND PTSD education*	Consider reference evaluate Al PTSD Ed	Refer to Mental Health AND PTSD Education*	

on PTSD, encourage self-management activities and counsel to seek help for worsening symptoms

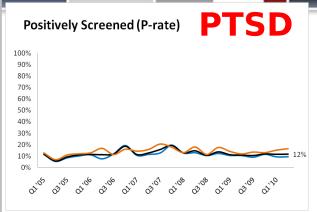
Implementation Timeline

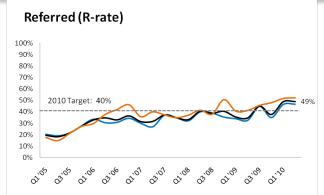


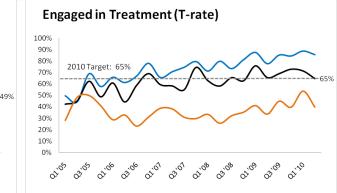


Do New Assessments Add Value?









	Total Persions Screened by Service and Component																					
	cws, que	1703, Q2 0	:100, Q3 C	ио, Q+	ကောန်တွေ။ က	wo.Qee	အာ(တွေ ဗ	204, Q∔	C1207, Q1. C	¥07, Q2 (:1707, Q3	01207, Q∔	СУ08, Q1	CY08, Q2	с т ов, фа	c708 Q+	c.209Q1	C1709Q2	стож	C1709Q+	caroór	ca1065
Army Active	39,319	9,413	10,133	23,633	85,855	7,791	28,634	47,577	12,372	8,273	13,906	48,258	23,496	27,064	21,201	39,052	32,798	22,569	30,345	38,334	24,722	27,711
Army Reserve	33,546	5,082	10,713	32,815	7,817	12,672	8,868	12,246	5,137	6,654	12,411	6,028	7,429	19,441	4,046	17,111	8,292	2,779	19,750	9,986	21,725	12,635
Newy Active	2,337	8,213	5,360	1,589	7,164	1,608	3,799	1,223	2,055	1,947	2,028	2,656	2,280	2,808	3,029	3,749	3,300	1,919	2,458	3,406	2,173	2,108
Newy Reserve	610	275	420	247	828	2.59	1,083	299	749	1,050	591	909	972	1,165	1,092	913	628	599	751	672	1,265	902
Air Force Active	13,470	13,025	12,744	5,459	14,629	13,519	13,250	8,173	14,513	14,215	13,682	9,454	15,420	14,515	12,259	10,074	15,271	12,429	14, 111	11,414	14,691	13,845
Air Fonce Resenve	2,328	2,715	4,304	2,595	2,932	3,576	3,687	1,684	3,190	3,260	4,401	2,008	3,463	3,201	4,285	2,525	3,930	3,972	4,136	2,985	3,771	4,112
Marines Active	12,527	4,258	2,207	2,491	9,582	4,029	10,105	3,083	10,962	5,327	8,936	9,220	9,601	9,264	6,006	8,582	7,295	7,683	4,8 52	6,898	4,449	4,412
Marines Reserve	194	461	239	632	526	280	206	299	457	942	332	30	1, 148	1,722	1,340	992	3 12	1,102	493	436	242	129
DoD Total	104,331	44,087	58,320	70,061	78,848	44,394	69,582	75,784	49,425	41,668	62,287	78,558	63,869	79,846	54,458	82,948	71,832	65,052	76,396	74,131	73,088	71,260

Active Reserve Total

About the Measure

What are we measuring? Population is defined as returning deployers with a DD2796 (PDHA) or DD2900 (PDHRA) on file. Those with positive screen or referral on either form are counted. Screen positive percent = those who endorsed 2 or more symptoms on the PC-PTSD screen / form completers. Referral percent = those referred to mental health specialty or primary care, substance abuse, chaplain, or Military One Source / form completers screening positive. Follow up percent = those with mental health-related clinic encounter during 180 days following return / form completers who screened positive and were referred to mental health primary or specialty care.

Why is it important? We monitor our positive screened percentage (p-rate) as this reflects the level of PTSD symptoms in returning deployers. We also monitor the percentage of persons screened positive who were referred for treatment (R-rate) as a reflection of the effectiveness of the process for face to face review. Finally, we monitor the percentage of persons who engaged in treatment (T-rate).

What does our performance tell us? At this time, about 10% of Service members returning from OIF/OEF deployments are reporting symptoms of PTSD. The number referred for further evaluation or treatment has increased from about 20% to 40% over the past four years, possibly reflecting decreased

Executive Sponsor: CPSC

Working Group: None

Measure Advocate: Mr.Tim Powers

Mr.Tim Powers AFHSC; (301) 319-3242

Monitoring: Quarterly

Data Source:

Status Thresholds:

• Green: R-rate > 40% AND

T-rate > 65%
• Yellow: R-rate 20%-

Yellow: R-rate 20%-40% AND T-rate 50 -65%

• Red: R-rate < 20% or T-rate < 50%

Targets:

• 2011: R-rate: 50%, T-rate: 75%

• 2012: R-rate: 50%,45

T-rate: 75%

Example: PTSD assessment



Self Report: Primary Care PTSD Screen (PC-

Have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:							
4a. Have had nightmares about it or thought about it when you did not want to?	Yes	No					
4b. Tried hard not to think about it or went out of your way to avoid situations that remind you of it?	Yes	No					
4c. Were constantly on guard, watchful or easily startled?	No	No					
4d. Felt numb or detached from others, activities, or your surroundings?	No	No					

If two or more of these questions are endorsed "Yes" then continue to the

PTSD Checklist.

DTCD

Additional PTSD Questions

Below is a list of problems and complaints that persons sometimes have in response to stressful life experiences. Please each question carefully and circle the number in the box which indicates how much you have been bothered by that blem in the last month . Please answer all items.

Response	Scoring a: Add up the circled numbers in each of the five columns.							
4e. Repeated, disturbing <i>memories, thoughts, or images</i> of) the	iive colaiiiiisi		
a stressful experience from the past?			3	4	- 5			
4f. Repeated, disturbing <i>dreams</i> of a stressful experience from the past?	1	2	3	4	5			
4g. Suddenly <i>acting</i> or <i>feeling</i> as if a stressful experience								
were happening again (as if you were reliving it)?	1	2	3	4	5			
4h. Feeling <i>very upset</i> when <i>something reminded</i> you of a	_		_					
stressful experience from the past?	1	2	3	4	5			
4i. Having <i>physical reactions</i> (e.g., heart pounding, trouble breathing, or sweating) when <i>something reminded</i> you of a	4	0	0		_			
stressful experience from the past?	1	2	3	4	5			
4j. Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	1	9	3	4	5	Cooring		
4k. Avoid <i>activities</i> or <i>situations</i> because they <i>remind you</i> of a stressful experience from the past?	1	2	3	4	5	Scoring		
41. Trouble <i>remembering important parts</i> of a stressful experience from the past?	1	2	3	4	5	b: Sum		
4m. Loss of interest in thinas that you used to eniov?	1	2	3	4	5	the value		
4n. Feeling <i>distant</i> : or <i>cut</i> : off from other people?	1	(2)	3	4	5			
4o. Feeling <i>emotionally numb</i> or being unable to have loving feelings for those close to you?	1	2	3	4	5	from the		
4p. Feeling as if your <i>future</i> will somehow be <i>cut short</i> ?	1	2	3	(4)	5	🖊 columns t		
4a. Trouble fallina or stavina asleep?	1	2	(3)	4	5			
4r. Feeling <i>irritable</i> or having <i>anary outbursts</i> ?	1	2	3	4	5	🖊 obtain a		
4s. Having difficulty concentratina?		2	3	4		total		
4t. Being "super alent" or watchful on quard?	1	(2)	3	4				
4u. Feeling <i>ium</i> ov or easily startled?	1	2		1	5	severity		
For Primary Care Provider - Add Columns:	2 -	+ 8 +	15 + 47	<i>12</i> +	10	Severity		
Total:			(47)			SCORE		

Scoring b: Sum the values from the columns to obtain a total severity

score. 47

Stage 3: PTSD Algorithm



Level of Functionin g	PCL Score <30 Sub-threshold or no PTSD Symptoms	PCL Score 30- 39 Mild PTSD Symptoms	PCL Score 40- 49 Moderate PTSD Symptoms	PCL Score ≥50 Severe PTSD Symptoms
Not difficult at all or Somewhat Difficult	Consider offering Reassurance AND PTSD Education*	PTSD Ed	Consider referral AND PTSD Education*	
Very Difficult To Extremely Difficult *PTSD Edu	Assess need for further evaluation AND PTSD education*	Consider reference evaluate Al PTSD Ed	Refer to Mental Health AND PTSD Education* literature	

on PTSD, encourage self-management activities and counsel to seek helps for worsening symptoms

Exceptions / Waivers



- Pre deployment
 - -60 to 120 days
- 1 year and 2 years after return
 - -7-12 months to 7-18 months
 - -16-24 months to 16-30 months
- Personnel
- Frequent deployers

Comparable Screening Rates



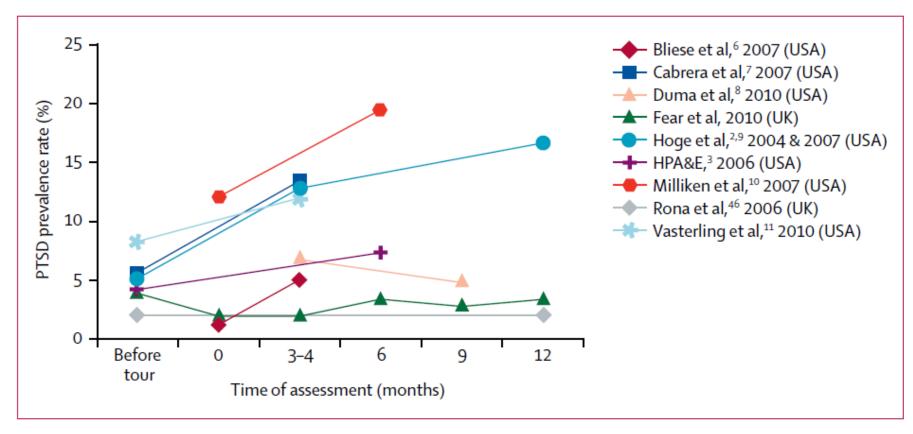


Figure 5: Prevalence of probable post-traumatic stress disorder (PTSD) within the first year of return since deployment(Fear et al, 2010)

Prevalence Rates, Depression



	Source	Scale	Duration	Population	Rate	Our rate
	JAMA	PHQ-2	PDHA (2 weeks),	OIF Army/Marine (N=222 620)	6.1	3%
Hoge	(2006)	(1+)	2003-2004	OEF Army/Marine (N=16318)	3.5	
Hoge	NEJM 04	PHQ +Fn	3-4 months post	Army/Marines	7.9	7.1
	JAMA	PHQ-2 (1+)	PDHA (2wks),	OIF Active (N = 56 350)	4.7	
Millike			2005-2006	OIF NG/R (N = 31 885)	3.8	
n	(2007)		PDHRA (3-6mos),	OIF Active (N = 56 350)	10.3	8%
			2005-2006	OIF NG/R (N = 31 885)	13.0	

Prevalence Rates, PTSD



Aut	Source	Scale	Duration	Population	Rate	Our stud y
Нодо	JAMA	PC-PTSD	PDHA (2wks),	OIF Army/Marine (N=222 620)	9.8	9%
Hoge	(2006) (2+) 2003-2004		2003-2004	OEF Army/Marine (N=16318)	4.7	
Hoge	NEJM 04	PCL-S +Fn	3-4 months post	Army/Marines	12.9/	/12.2
Shen	MilMed	PC-PTSD	PDHA (30d),	OIF Sailors (N = 15 059)	10.0	
Shen	(2009)	(2+)	2002-2006	OEF Sailors (N = 1034)	5.0	
			PDHA (2wks),	OIF Active (N = 56 350)	11.8/	
Millik	JAMA	PC-PTSD	2005-2006	OIF NG/R (N = 31 885)	12.7/	
en	(2007)	(2+)	PDHRA (3-6mos),	OIF Active (N = 56 350)	16.7/	11 %